

# Mammography and Radiation Facility Distribution in Michigan Table of Contents

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## **Mammography and Radiation Facility Distribution in Michigan**

The numbers of mammography and radiation therapy facilities per county are presented within this section. Facility information was received from the Michigan Department of Community Health, Radiation Safety Section.<sup>1</sup> Mammography and radiation therapy facilities were geocoded by Zip codes using Geographic Information System (GIS) software, and their locations throughout the state are shown.<sup>2</sup> Distance analysis was performed to calculate the proportion of women in Michigan that are farther than 30 miles from any mammography facility and the proportion of the total population that is farther than 45 miles from any radiation therapy facility.<sup>3</sup> Population data from U.S. Census 2000 are presented to illustrate potential demand for mammography and radiation therapy facilities in counties.<sup>4</sup>

### Summary

Within a priority objective of the Michigan Cancer Consortium Initiative (MCCI) related to breast cancer screening is the objective that all women should have access to clinical breast examination and mammography within 30 miles or 30 minutes of their home. Figures 1 through 4 present mammography facility and radiation therapy facility locations throughout the state and female and total population sizes by county. Analyses of mammography facility locations found that 99.8% of the female population in Michigan is within 30 miles of a mammography facility. Analysis also included radiation therapy facility locations and found 2.2% of the total Michigan population is farther than 45 miles from any radiation therapy facility. Direct distances between points are analyzed rather than actual road distance traveled. This analysis does not describe factors affecting the ease of accessibility to facilities such as the availability of public transportation, nor does it describe the utilization of the facilities.

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<sup>1</sup> Michigan Department of Community Health, Radiation Safety Section; "Mammography Facility Status in Michigan" and "Therapy Accelerator Facilities in Michigan", May 9, 2005.

<sup>2</sup> ESRI's ArcView GIS was used for mapping locations of facilities. When Zip codes provided by the Michigan Department of Community of Health were not matched with Zip codes in the ArcView data for geocoding, the Zip Code Lookup on the US Postal Service website was used to find Zip codes according to street addresses.

<sup>3</sup> Distance analyses were performed using an Equidistant Conic Projection for the Contiguous United States. Distances from the center points of Zip code areas to the center of census block groups were calculated, and the populations of block groups in 1990 were used to determine the approximate proportions of population subgroups that are within a specified distance from a facility.

<sup>4</sup> U.S.Census Bureau, Census 2000, Summary File 4.

Figure 1.

## Number of Mammography Facilities by County, 2005

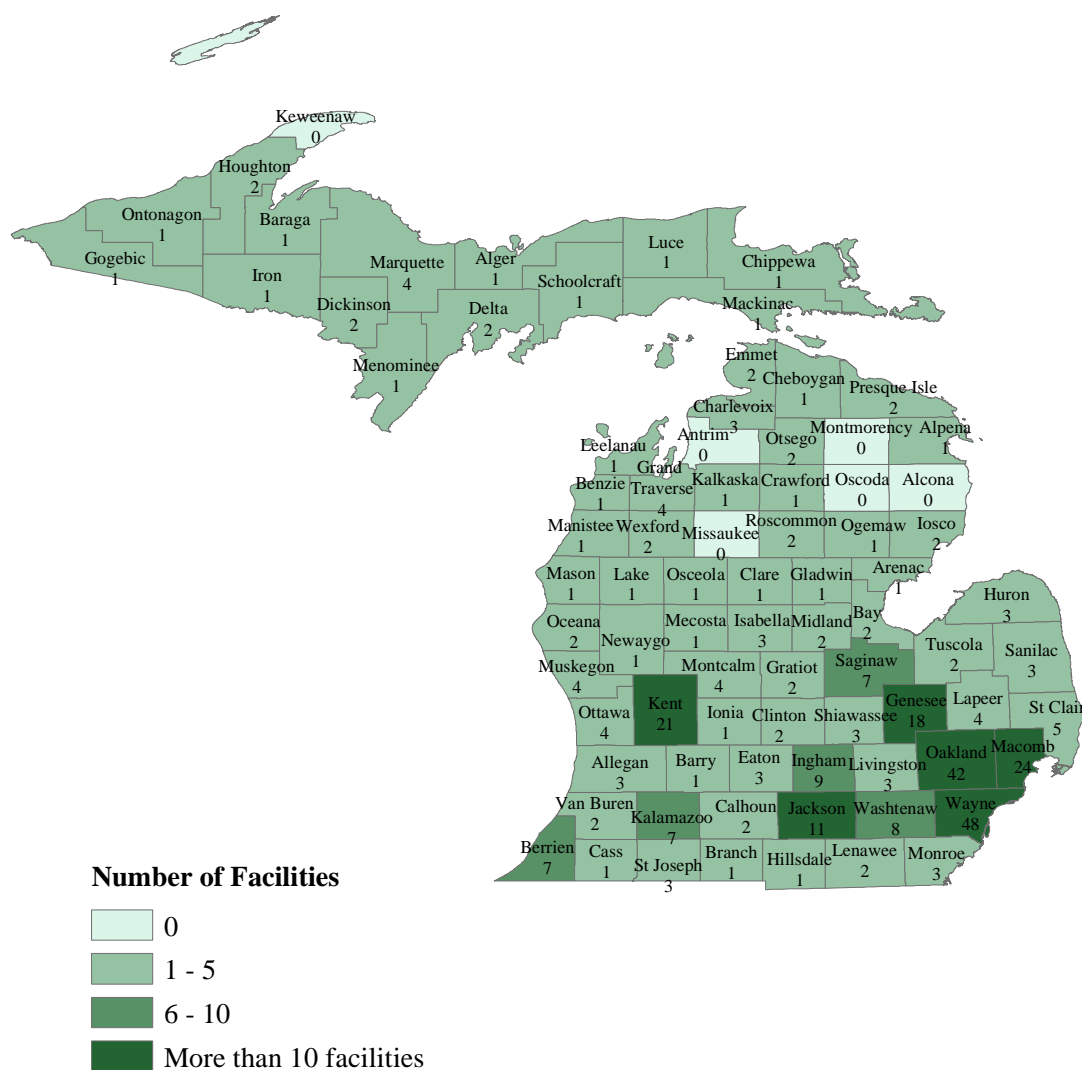


Figure 2.

## Locations of Mammography Facilities by Female Population Age 40 Years and Older and County

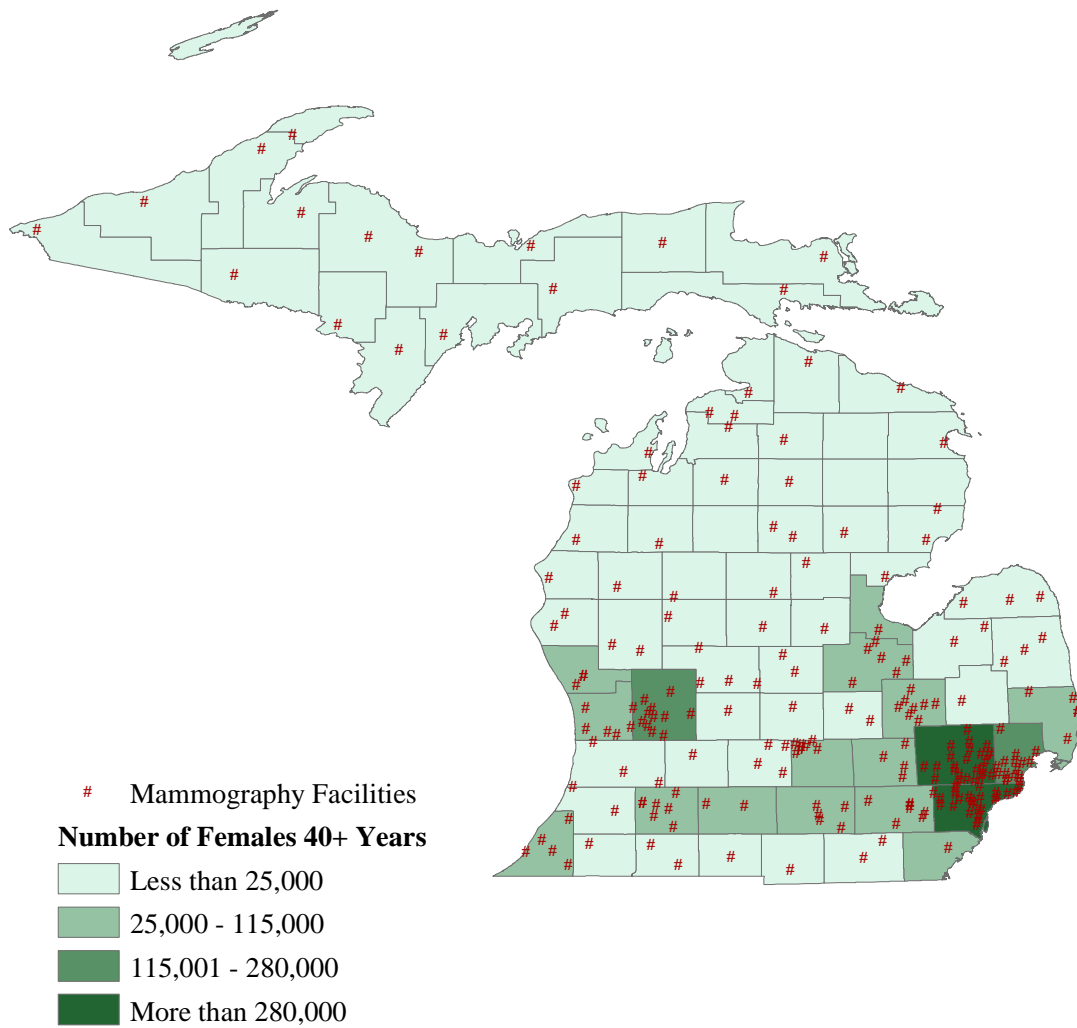


Figure 3.

## Number of Radiation Therapy Facilities by County, 2005

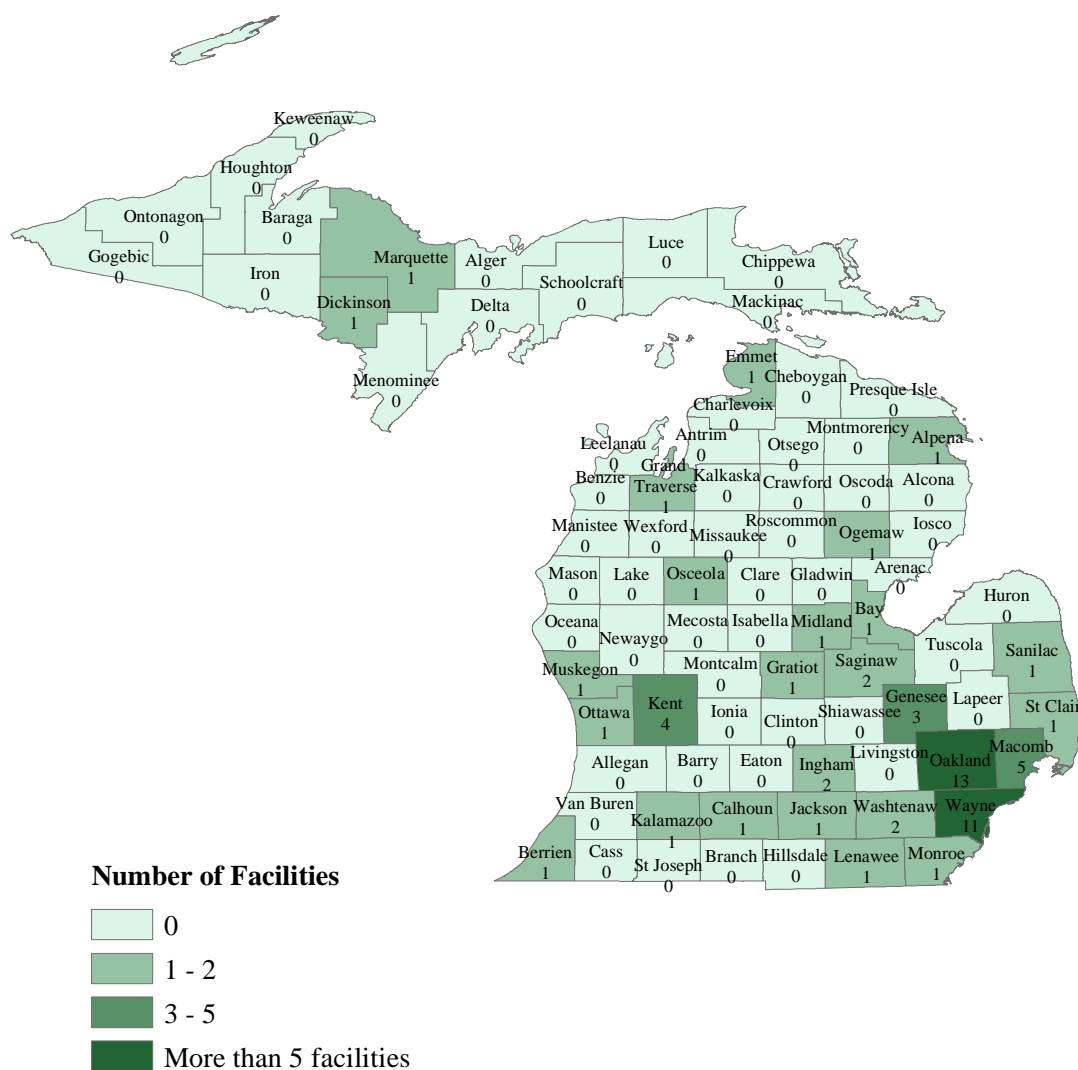


Figure 4.

## Locations of Radiation Therapy Facilities by Total Population and County

